Abstract of the Disclosure

A method and transceiver for wireless multicarrier communications. At the transmitter side, conventional OFDM symbols, after inverse fast Fourier Transform, are scrambled in time domain and then guard-interval (GI) inserted, up-converted at the carrier frequency for transmission. At the receiver side, after GI removal and frequency domain channel equalization, the received signal is transformed into time-domain by inverse fast Fourier Transform. The time-domain equalized signal is descrambled in time domain and then transformed back to the frequency domain before it is rate-matched, demodulated and decoded. This time-domain scrambling and descrambling method can be used in a wireless OFDM system such as WLAN, cellular OFDM, and MC-CDMA.